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### AMENDMENTS TO THE DRAWING

In the Drawing, delete the pending four (4) drawing sheets respectively numbered "1/6", "3/6", "5/6" and "6/6" and replace therewith the enclosed four (4) Replacement Drawing sheets respectively numbered "1/6", "3/6", "5/6" and "6/6". Thus, replace the pending drawing sheet "1/6" with the corresponding Replacement Drawing sheet numbered "1/6"; replace the pending drawing sheet "3/6" with the corresponding Replacement Drawing sheet numbered "3/6"; replace the pending drawing sheet "5/6" with the corresponding Replacement Drawing sheet numbered "5/6"; and replace the pending drawing sheet "6/6" with the corresponding Replacement Drawing sheet numbered "6/6".

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### REMARKS

1. The following three (3) Related Applications, all filed by the same inventors hereof and all commonly-assigned to Xerox Corporation, hereby are brought to the attention of the Examiner:

A first (1st) daughter application, now pending, entitled "Environmental system including a micromechanical dispensing device", was filed on 20 April 2004 as application number 10/827,922, this first daughter application being filed as a continuation-in part of the present application;

A second (2nd) daughter application, now pending, entitled "Video game system including a micromechanical dispensing device", was filed on 20 April 2004 as application number 10/828,411, this second daughter application being filed as a continuation-in part of the present application; and

A third (3rd) daughter application, now pending, entitled "Micromechanical dispensing device and a dispensing system including the same", was filed on 9 August 2004 as application number 10/914,531, this third daughter application being filed as a continuation-in part of the present application.

2. In response to the Office Action mailed 05/04/2006, the applicant hereby amends his drawing, specification and claims.

3. Claims 1-49 are pending. Claims 2, 9, 11-20, 22, 29 and 31-39 are canceled. Claims 1, 3-8, 10, 21, 23-28 and 30 are amended. Claims 40-49 are withdrawn and amended. No new matter is added. All amendments are fully supported by the originally-filed application including, but not limited to, the two (2) drawing views labeled FIG. 2 and FIG. 4, together with the following portions of the written description:

- A. the paragraph at page 5, lines 24-28;
- B. the paragraph from page 15, line 33 to page 16, line 5;
- C. the paragraph from page 21, line 28 to page 22, line 2;

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- D. the paragraph at page 25, lines 15-19;
- E. the paragraph at page 34, lines 1-3; and
- F. the paragraph at page 36, lines 32-34.

4. In the Office Action mailed 05/04/2006, restriction to one of the following inventions was required under 35 U.S.C. 121:

- I. Claims 1-10, 21-30 and 40-49; and
- II. Claims 11-20 and 31-39.

Also, it was noted the application contains claims directed to the following species:

- I. Species I, directed towards figures 2-5; and
- II. Species II, directed towards figures 6-7.

Also, applicant was required to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Also, applicant was advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added.

During a telephone conversation on February 13, the undersigned attorney of record provisionally elected to prosecute invention I and species I, readable on claims 1-10 and 21-30.

Also, it was noted that affirmation of this election must be made by applicant in replying to the Office Action.

ACCORDINGLY, NOW THE APPLICANT HEREBY AFFIRMS its election to prosecute invention I and species I, readable on claims 1-10 and 21-30.

5. The drawings were objected to under 37 CFR 1.83(a) as not showing every feature of the invention specified in the claims. In particular, the drawings were objected to as not showing the following items in the corresponding claims:

- a. The electrostatically-driven membrane of claims 3 and 23;

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- b. The electrostatically-actuated piston of claims 3 and 23;
- c. The magnetically-actuated membrane of claims 3 and 23;
- d. The thermally-actuated paddle vane of claims 3 and 23;
- e. The ballistic aerosol dispensing mechanism of claims 3 and 23;
- f. The dispersion pad of claims 9 and 29, where the dispersion pad is arranged to receive at least one fluid that is dispensed; and
- g. The orifice plate of claims 10 and 30, where the orifice plate is arranged such that at least one of the one or more fluids dispensed by at least one or more of the micromechanical dispensing mechanisms is further dispensed through the orifice.

In response to this objection, claims 9 and 29 are cancelled, thus eliminating the corresponding ground for objection labeled "f" as recited above.

Further in response to this objection, the drawing is amended to cure the remaining grounds for objection labeled "a", "b", "c", "d", "e" and "g" as recited above.

IN PARTICULAR:

First, the electrostatically-driven membrane of claim 3 now is depicted in FIG. 2 by newly-added reference number 210a, and the electrostatically-driven membrane of claim 23 now is depicted in FIG. 4 by newly-added reference numbers 410a, 411a.

Second, the electrostatically-actuated piston of claim 3 now is depicted in FIG. 2 by newly-added reference number 210b, and the electrostatically-actuated piston of claim 23 now is depicted in FIG. 4 by newly-added reference numbers 410b, 411b.

Third, the magnetically-actuated membrane of claim 3 now is depicted in FIG. 2 by newly-added reference number 210c, and the magnetically-actuated membrane of claim 23 now is depicted in FIG. 4 by newly-added reference numbers 410c, 411c.

Fourth, the thermally-actuated paddle vane of claim 3 now is depicted in FIG. 2 by newly-added reference number 210e, and the thermally-actuated paddle vane of claim 23 now is depicted in FIG. 4 by newly-added reference numbers 410e, 411e.

Fifth, the ballistic aerosol dispensing mechanism of claim 3 now is depicted in FIG. 2 by newly-added reference number 210d, and the ballistic aerosol dispensing mechanism of claim 23 now is depicted in FIG. 4 by newly-added reference numbers 410d, 411d.

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Sixth, as to claim 10, the orifice plate 295 being arranged such that at least one fluid of the one or more fluids 271, 273 dispensed by at least one or more of the micromechanical dispensing mechanisms 210, 212 is further dispensed through the orifice 296 as recited in claim 10 now is depicted in FIG. 2 by newly-added reference numbers 271a, 273a; and as to claim 30, the orifice plate 495 being arranged such that at least one fluid of the plurality of fluids 471, 472, 473 dispensed by at least one of the plurality of micromechanical dispensing mechanisms 410, 411, 412 is further dispensed through the orifice 496 as recited in claim 30 now is depicted in FIG. 4 by newly-added reference numbers 471a, 472a, 473a.

It is thus believed that this objection to the drawing is traversed.

Moreover, a 9-sheet Drawing Amendment comprising four (4) Replacement Drawing sheets and five (5) sheets of written Replacement Drawing Remarks seasonably and in a timely manner is being filed in this application (under separate cover) by depositing the aforementioned Drawing Amendment with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to the U.S.P.T.O. at the following address: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

For the convenience of the Examiner, copies of the foregoing Replacement Drawing sheets and Drawing Remarks which are being filed in this case under separate cover now also are presented in this same document, as explained below in I and II:

- I. The copies of the four (4) Replacement Drawing sheets are inserted following the instant fifty-four (54) sheets of written text; and
- II. The Drawing Remarks are copied below.

#### DRAWING REMARKS

Four (4) Replacement Drawing sheets respectively numbered 1/6, 3/6, 5/6 and 6/6 herewith are entered. Now these Replacement sheets are compared to the corresponding four (4) pending drawing sheets numbered of like numbers.

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In the FIRST (1st) Replacement sheet numbered "1/6", drawing view FIG. 2 :

A. In the micromechanical dispensing mechanism 210, now there are added the following five (5) elements i through v:

- i. electrostatically-driven membrane, reference number 210a;
- ii. electrostatically-actuated piston, reference number 210b;
- iii. magnetically-actuated membrane, reference number 210c;
- iv. ballistic aerosol dispensing mechanism, reference number 210d;
- v. thermally-actuated paddle vane, reference number 210e;

And,

B. In the orifice 296, now there are added the following two (2) elements i-ii:

- i. fluid 271 being dispensed through the orifice 296, reference number 271a;  
and
- ii. fluids 273 being dispensed through the orifice 296, reference number 273a.

In the SECOND (2nd) Replacement sheet numbered "3/6", drawing view FIG. 4 :

C. In the micromechanical dispensing mechanism 410, now there are added the following five (5) elements i through v:

- i. electrostatically-driven membrane, reference number 410a;
- ii. electrostatically-actuated piston, reference number 410b;
- iii. magnetically-actuated membrane, reference number 410c;
- iv. ballistic aerosol dispensing mechanism, reference number 410d;
- v. thermally-actuated paddle vane, reference number 410e;

D. In the micromechanical dispensing mechanism 411, now there are added the following five (5) elements i through v:

- i. electrostatically-driven membrane, reference number 411a;
- ii. electrostatically-actuated piston, reference number 411b;
- iii. magnetically-actuated membrane, reference number 411c;
- iv. ballistic aerosol dispensing mechanism, reference number 411d;
- v. thermally-actuated paddle vane, reference number 411e;

And

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- E. In the orifice 496, now there are added the following three (3) elements i-iii:
- i. fluid 471 being dispensed through the orifice 496, reference number 471a;
  - ii. fluid 472 being dispensed through the orifice 496, reference number 472a;
  - iii. fluids 473 being dispensed through the orifice 496, reference number 473a.

In the THIRD (3rd) Replacement sheet numbered "5/6", drawing view FIG. 6 :

- F. In the micromechanical dispensing mechanism 610, now there are added the following five (5) elements i through v:

- i. electrostatically-driven membrane, reference number 610a;
- ii. electrostatically-actuated piston, reference number 610b;
- iii. magnetically-actuated membrane, reference number 610c;
- iv. ballistic aerosol dispensing mechanism, reference number 610d;
- v. thermally-actuated paddle vane, reference number 610e;

And

- G. In the orifice 696, now there are added the following three (3) elements i-iii:
- i. fluid 671 being dispensed through the orifice 696, reference number 671a;
  - ii. fluids 672 being dispensed through the orifice 696, reference number 672a;
  - iii. fluid 673 being dispensed through the orifice 696, reference number 673a.

In the FOURTH (4th) Replacement sheet numbered "6/6", drawing view FIG. 7 :

- H. In the micromechanical dispensing mechanism 710, now there are added the following five (5) elements i through v:

- i. electrostatically-driven membrane, reference number 710a;
- ii. electrostatically-actuated piston, reference number 710b;
- iii. magnetically-actuated membrane, reference number 710c;
- iv. ballistic aerosol dispensing mechanism, reference number 710d;
- v. thermally-actuated paddle vane, reference number 710e;

- I. In the micromechanical dispensing mechanism 711, now there are added the following five (5) elements i through v:

- i. electrostatically-driven membrane, reference number 711a;

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- ii. electrostatically-actuated piston, reference number 711b;
- iii. magnetically-actuated membrane, reference number 711c;
- iv. ballistic aerosol dispensing mechanism, reference number 711d;
- v. thermally-actuated paddle vane, reference number 711e;

And

J. In the orifice 796, now there is added the following one (1) element: -- fluid 77: being dispensed through the orifice 796, reference number 771a --.

6. The remarks below are directed to the remaining claims 1, 3-8, 10, 21, 23-28 and 30.

7. Claims 1, 3, 10, 21, 23 and 30 were rejected under section 102 as being anticipated by Gooray et al., U.S. Patent Number 6,419,335 (hereinafter "Gooray"). In response, these claims have been amended to more clearly and more patentably distinguish the claimed invention over Gooray. As a result, and for the reasons discussed below, it is believed this rejection is traversed.

Based on M.P.E.P. section 706.02, "for anticipation under 35 U.S.C. 102, the reference (Gooray) must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present".

In contrast, however, when these claims are compared to Gooray, substantial differences become apparent. This is explained below.

8. As to the rejection of claim 1 under section 102, this claim is copied below.

Line: Text:

- 1 A micromechanical dispensing device (200) to dispense one or more fluids
- 2 (271, 273) into an atmosphere, the micromechanical dispensing device
- 3 comprising one or more micromechanical dispensing mechanisms (210, 212),
- 4 each micromechanical dispensing mechanism of the one or more
- 5 micromechanical dispensing mechanisms fluidly connected to a corresponding



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6 fluid reservoir (220, 222); the micromechanical dispensing device further  
7 comprising a micromechanical dispensing device controller (240), the  
8 micromechanical dispensing device controller arranged to communicate with  
9 each micromechanical dispensing mechanism of the one or more  
10 micromechanical dispensing mechanisms, the micromechanical dispensing  
11 mechanisms (210, 212) comprising inlets (213, 214) for receiving a fluid to be  
12 dispensed, the inlets being fluidly connected to channels (254, 255) that conduct  
13 fluid from the fluid reservoirs to the micromechanical dispensing mechanisms  
14 (210, 212), the channels (254, 255) further comprising at least one channel port  
15 (226, 228) to which the corresponding fluid reservoir (220, 222) is removably,  
16 fluidly connected by means of a corresponding fluid reservoir port (223, 225) of  
17 the fluid reservoir (220, 222),

claim 1, as amended, emphasis added to lines 14-17.

As shown in the text above, claim 1 contains the following emphasized  
(underlined) limitations in lines 14-17:

Line: Text:

14 (210, 212), the channels (254, 255) further comprising at least one channel port  
15 (226, 228) to which the corresponding fluid reservoir (220, 222) is removably,  
16 fluidly connected by means of a corresponding fluid reservoir port (223, 225) of  
17 the fluid reservoir (220, 222)

claim 1, in part, emphasis added to lines 14-17.

In contrast to the underlined limitations in claim 1, lines 14-17 above, Gooray contains NO TEACHING OR SUGGESTION that his electrostatically-actuated fluid ejector 100 comprises channels (254, 255), with *"the channels (254, 255) further comprising at least one channel port (226, 228) to which the corresponding fluid reservoir (220, 222) is removably, fluidly connected by means of a corresponding fluid*

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*reservoir port (223, 225) of the fluid reservoir (220, 222)", as recited in claim 1, lines 14-17, above.*

Since Gooray is DEVOID of any TEACHING or SUGGESTION of the limitations *"the channels (254, 255) further comprising at least one channel port (226, 228) to which the corresponding fluid reservoir (220, 222) is removably, fluidly connected by means of a corresponding fluid reservoir port (223, 225) of the fluid reservoir (220, 222)", as recited in claim 1, lines 14-17 above, then claim 1 is NOT satisfied by Gooray.*

In summary, as shown above, claim 1 comprises limitations in lines 14-17 that are NOT satisfied by Gooray. Thus, Gooray does NOT "teach every aspect of the claimed invention" in claim 1, as required by M.P.E.P. section 706.02 to support the rejection of anticipation.

As a result, claim 1 is NOT anticipated by Gooray and, moreover, this rejection is traversed.

9. Further to the allowability of claim 1, now the remaining cited references, namely, – Smith et al., U.S. Patent Number 6,247,525 (hereinafter "Smith"); Helf et al., U.S. Patent Number 6,293,474 (hereinafter "Helf"); Kubby et al., U.S. Patent Number 6,357,865 (hereinafter "Kubby"); Dennis J. Denen, U.S. Patent Number 6,439,474 (hereinafter "Denen"); Carl J. Watkins, U.S. Patent Number 6,536,746 (hereinafter "Watkins"); and Hess et al., U.S. Patent Number 6,802,460 (hereinafter "Hess"), -- respectively are discussed in 9A through 9F below.

A. As to Smith, this reference is directed to a "vibration induced atomizer" that is driven by piezoelectric disks or elements 39a-39d and 62a-62d (see the title; also see the abstract; see also the text at col. 4, lines 49-59; col. 6, lines 34-48; col. 8, lines 16-25) and thus has NO RELEVANCE OR PERTINENCE to claim 1, which is directed to a "micromechanical dispensing device". The Smith reference thus is NON-ANALOGOUS to the invention of claim 1. Moreover, as Smith is a NON-ANALOGOUS REFERENCE to claim 1 then, accordingly, Smith CANNOT be used as a reference to determine the allowability of claim 1.

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Further as to Smith, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the channels (254, 255) further comprising at least one channel port (226, 228) to which the corresponding fluid reservoir (220, 222) is removably, fluidly connected by means of a corresponding fluid reservoir port (223, 225) of the fluid reservoir (220, 222)"*, as recited in claim 1, lines 14-17 above.

B. As to Helf, this reference is directed to a "piezoelectric atomizer" (see the abstract; also see the text at col. 4, lines 11-39) and thus has NO RELEVANCE OR PERTINENCE to claim 1, which is directed to a "micromechanical dispensing device". The Helf reference thus is NON-ANALOGOUS to the invention of claim 1. Moreover, as Helf is a NON-ANALOGOUS REFERENCE to claim 1 then, accordingly, Helf CANNOT be used as a reference to determine the allowability of claim 1.

Further as to Helf, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the channels (254, 255) further comprising at least one channel port (226, 228) to which the corresponding fluid reservoir (220, 222) is removably, fluidly connected by means of a corresponding fluid reservoir port (223, 225) of the fluid reservoir (220, 222)"*, as recited in claim 1, lines 14-17 above.

C. As to Kubby, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the channels (254, 255) further comprising at least one channel port (226, 228) to which the corresponding fluid reservoir (220, 222) is removably, fluidly connected by means of a corresponding fluid reservoir port (223, 225) of the fluid reservoir (220, 222)"*, as recited in claim 1, lines 14-17 above.

D. As to Denen, this reference is directed to a "piezoelectric vibrating atomizer" that is driven by an annularly-shaped piezoelectric actuator 10 (see the title; also see the abstract; see also the text at col. 4, lines 53-64) and thus has NO RELEVANCE OR PERTINENCE to claim 1, which is directed to a "micromechanical dispensing device". The Denen reference thus is NON-ANALOGOUS to the invention of claim 1. Moreover,

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as Denen is a NON-ANALOGOUS REFERENCE to claim 1 then, accordingly, Denen CANNOT be used as a reference to determine the allowability of claim 1.

Further as to Denen, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the channels (254, 255) further comprising at least one channel port (226, 228) to which the corresponding fluid reservoir (220, 222) is removably, fluidly connected by means of a corresponding fluid reservoir port (223, 225) of the fluid reservoir (220, 222)"*, as recited in claim 1, lines 14-17 above.

E. As to Watkins, in various embodiments this reference is directed to a "piezo electric ultrasonic nebulizer 82" (see col. 6, lines 28-54), or a "piezo-ceramic vibration plate 86" (see the text from col. 6, line 55 to col. 7, line 4), or a "micro pump 94 and ultrasonic spray vaporizer 96" (see the text at col. 7, lines 5-29), or a "bubble jet-type cartridge 104" arranged with a laser beam 108 (see the text at col. 7, lines 30-46), or a "micro valve 110" arranged with the laser beam 108 (see the text at col. 7, lines 47-59), and thus has NO RELEVANCE OR PERTINENCE to claim 1, which is directed to a "micromechanical dispensing device". The Watkins reference thus is NON-ANALOGOUS to the invention of claim 1. Moreover, as Watkins is a NON-ANALOGOUS REFERENCE to claim 1 then, accordingly, Watkins CANNOT be used as a reference to determine the allowability of claim 1.

Further as to Watkins, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the channels (254, 255) further comprising at least one channel port (226, 228) to which the corresponding fluid reservoir (220, 222) is removably, fluidly connected by means of a corresponding fluid reservoir port (223, 225) of the fluid reservoir (220, 222)"*, as recited in claim 1, lines 14-17 above.

F. As to Hess, this reference is directed to a "piezo-electric atomizer 264" (see the text from from col. 10, line 41 to col. 11, 6; and col. 12, lines 37-55) and thus has NO RELEVANCE OR PERTINENCE to claim 1, which is directed to a "micromechanical dispensing device". The Hess reference thus is NON-ANALOGOUS to the invention of claim 1. Moreover, as Hess is a NON-ANALOGOUS REFERENCE to claim 1 then,

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accordingly, Hess CANNOT be used as a reference to determine the allowability of claim 1.

Further as to Hess, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the channels (254, 255) further comprising at least one channel port (226, 228) to which the corresponding fluid reservoir (220, 222) is removably, fluidly connected by means of a corresponding fluid reservoir port (223, 225) of the fluid reservoir (220, 222)"*, as recited in claim 1, lines 14-17 above.

10. In summary, as to the allowability of claim 1:

A. As to the reference Gooray, this reference does NOT anticipate claim 1;

B. As to the five (5) references Smith, Helf, Denen, Watkins and Hess, these five (5) references are NON-ANALOGOUS REFERENCES to claim 1 and, accordingly, CANNOT be used as references to determine the allowability of claim 1; and

C. Notwithstanding B, as to the seven (7) references Gooray, Smith, Helf, Kubby, Denen, Watkins and Hess, when the invention of claim 1 is compared with these seven (7) references, DISTINCT DIFFERENCES become apparent and, moreover, UNLESS these seven (7) references, by themselves, would have suggested NOT ONLY these differences BUT ALSO the ENTIRE INVENTION of claim 1, viewed as a whole, to one of ordinary skill in the art at the time the invention was made, then claim 1 is PATENTABLE (allowable) over these seven (7) references.

11. Claims 3-8 and 10 are dependent on claim 1. As a result, these dependent claims 3-8 and 10 are believed allowable at least on the grounds that they depend on their common parent claim 1 which, as discussed in 8-10 above, is itself allowable.

12. Claims 21, 23 and 30 were rejected under section 102 as being anticipated by Gooray et al., U.S. Patent Number 6,419,335 (hereinafter "Gooray"). In response, these claims have been amended to more clearly and more patentably distinguish the claimed invention over Gooray. As a result, and for the reasons discussed below, it is believed this rejection is traversed.

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Based on M.P.E.P. section 706.02, "for anticipation under 35 U.S.C. 102, the reference (Gooray) must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present".

In contrast, however, when these claims are compared to Gooray, substantial differences become apparent. This is explained below.

13. As to the rejection of claim 21 under section 102, this claim is copied below.

Line Text

1 A micromechanical dispensing device (400) to dispense a plurality of fluids  
2 (471, 472, 473) into an atmosphere, the micromechanical dispensing device  
3 comprising a plurality of micromechanical dispensing mechanisms (410, 411,  
4 412), each micromechanical dispensing mechanism of the plurality of  
5 micromechanical dispensing mechanisms (410, 411, 412) fluidly connected to a  
6 corresponding fluid reservoir (420, 421, 422); the micromechanical dispensing  
7 device further comprising a micromechanical dispensing device controller (440),  
8 the micromechanical dispensing device controller arranged to communicate with  
9 each micromechanical dispensing mechanism of the plurality of micromechanical  
10 dispensing mechanisms (410, 411, 412), the plurality of micromechanical  
11 dispensing mechanisms (410, 411, 412) comprising a plurality of inlets (413,  
12 414, 415) for receiving fluids to be dispensed, the plurality of inlets being fluidly  
13 connected to a plurality of channels (454, 455, 456) that conduct fluid from the  
14 plurality of fluid reservoirs (420, 421, 422) to the plurality of micromechanical  
15 dispensing mechanisms (410, 411, 412), the plurality of channels (454, 455,  
16 456) further comprising channel ports (426, 427, 428) to which the corresponding  
17 fluid reservoirs (420, 421, 422) are removably, fluidly connected by means of  
18 corresponding fluid reservoir ports (423, 424, 425) of the respective fluid  
19 reservoirs (420, 421, 422),

claim 21, as amended, emphasis added to lines 15-19.

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As shown in the text above, claim 21 contains the following emphasized (underlined) limitations in lines 15-19:

Line: Text:

15 dispensing mechanisms (410, 411, 412), the plurality of channels (454, 455,  
16 456) further comprising channel ports (426, 427, 428) to which the corresponding  
17 fluid reservoirs (420, 421, 422) are removably, fluidly connected by means of  
18 corresponding fluid reservoir ports (423, 424, 425) of the respective fluid  
19 reservoirs (420, 421, 422)

claim 21, in part, emphasis added to lines 15-19.

In contrast to the underlined limitations in claim 21, lines 15-19 above, Gooray contains NO TEACHING OR SUGGESTION that his electrostatically-actuated fluid ejector 100 comprises a plurality of channels (454, 455, 456), with *"the plurality of channels (454, 455, 456) further comprising channel ports (426, 427, 428) to which the corresponding fluid reservoirs (420, 421, 422) are removably, fluidly connected by means of corresponding fluid reservoir ports (423, 424, 425) of the respective fluid reservoirs (420, 421, 422)"* as recited in claim 21, lines 15-19, above.

Since Gooray is DEVOID of any TEACHING or SUGGESTION of the limitations *"the plurality of channels (454, 455, 456) further comprising channel ports (426, 427, 428) to which the corresponding fluid reservoirs (420, 421, 422) are removably, fluidly connected by means of corresponding fluid reservoir ports (423, 424, 425) of the respective fluid reservoirs (420, 421, 422)"*, as recited in claim 21, lines 15-19 above, then claim 21 is NOT satisfied by Gooray.

In summary, as shown above, claim 21 comprises limitations in lines 15-19 that are NOT satisfied by Gooray. Thus, Gooray does NOT "teach every aspect of the claimed invention" in claim 21, as required by M.P.E.P. section 706.02 to support the rejection of anticipation.

As a result, claim 21 is NOT anticipated by Gooray and, moreover, this rejection is traversed.

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14. Further to the allowability of claim 21, now the following aforementioned references Smith, Helf, Kubby, Denen, Watkins and Hess respectively are discussed in 14A through 14F below.

A. As to Smith, this reference is directed to a "vibration induced atomizer" that is driven by piezoelectric disks or elements 39a-39d and 62a-62d (see the title; also see the abstract; see also the text at col. 4, lines 49-59; col. 6, lines 34-48; col. 8, lines 16-25) and thus has NO RELEVANCE OR PERTINENCE to claim 21, which is directed to a "micromechanical dispensing device". The Smith reference thus is NON-ANALOGOUS to the invention of claim 21. Moreover, as Smith is a NON-ANALOGOUS REFERENCE to claim 21 then, accordingly, Smith CANNOT be used as a reference to determine the allowability of claim 21.

Further as to Smith, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the plurality of channels (454, 455, 456) further comprising channel ports (426, 427, 428) to which the corresponding fluid reservoirs (420, 421, 422) are removably, fluidly connected by means of corresponding fluid reservoir ports (423, 424, 425) of the respective fluid reservoirs (420, 421, 422)"* as recited in claim 21, lines 15-19 above.

B. As to Helf, this reference is directed to a "piezoelectric atomizer" (see the abstract; also see the text at col. 4, lines 11-39) and thus has NO RELEVANCE OR PERTINENCE to claim 21, which is directed to a "micromechanical dispensing device". The Helf reference thus is NON-ANALOGOUS to the invention of claim 21. Moreover, as Helf is a NON-ANALOGOUS REFERENCE to claim 21 then, accordingly, Helf CANNOT be used as a reference to determine the allowability of claim 21.

Further as to Helf, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the plurality of channels (454, 455, 456) further comprising channel ports (426, 427, 428) to which the corresponding fluid reservoirs (420, 421, 422) are removably, fluidly connected by means of corresponding fluid*



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*reservoir ports (423, 424, 425) of the respective fluid reservoirs (420, 421, 422)" as recited in claim 21, lines 15-19 above.*

C. As to Kubby, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the plurality of channels (454, 455, 456) further comprising channel ports (426, 427, 428) to which the corresponding fluid reservoirs (420, 421, 422) are removably, fluidly connected by means of corresponding fluid reservoir ports (423, 424, 425) of the respective fluid reservoirs (420, 421, 422)" as recited in claim 21, lines 15-19 above.*

D. As to Denen, this reference is directed to a "piezoelectric vibrating atomizer" that is driven by an annularly-shaped piezoelectric actuator 10 (see the title; also see the abstract; see also the text at col. 4, lines 53-64) and thus has NO RELEVANCE OR PERTINENCE to claim 21, which is directed to a "micromechanical dispensing device". The Denen reference thus is NON-ANALOGOUS to the invention of claim 21. Moreover, as Denen is a NON-ANALOGOUS REFERENCE to claim 21 then, accordingly, Denen CANNOT be used as a reference to determine the allowability of claim 21:

Further as to Denen, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the plurality of channels (454, 455, 456) further comprising channel ports (426, 427, 428) to which the corresponding fluid reservoirs (420, 421, 422) are removably, fluidly connected by means of corresponding fluid reservoir ports (423, 424, 425) of the respective fluid reservoirs (420, 421, 422)" as recited in claim 21, lines 15-19 above.*

E. As to Watkins, in various embodiments this reference is directed to a "piezo electric ultrasonic nebulizer 82" (see col. 6, lines 28-54), or a "piezo-ceramic vibration plate 86" (see the text from col. 6, line 55 to col. 7, line 4), or a "micro pump 94 and ultrasonic spray vaporizer 96" (see the text at col. 7, lines 5-29), or a "bubble jet-type cartridge 104" arranged with a laser beam 108 (see the text at col. 7, lines 30-46), or a

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"micro valve 110" arranged with the laser beam 108 (see the text at col. 7, lines 47-59), and thus has NO RELEVANCE OR PERTINENCE to claim 21, which is directed to a "micromechanical dispensing device". The Watkins reference thus is NON-ANALOGOUS to the invention of claim 21. Moreover, as Watkins is a NON-ANALOGOUS REFERENCE to claim 21 then, accordingly, Watkins CANNOT be used as a reference to determine the allowability of claim 21.

Further as to Watkins, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the plurality of channels (454, 455, 456) further comprising channel ports (426, 427, 428) to which the corresponding fluid reservoirs (420, 421, 422) are removably, fluidly connected by means of corresponding fluid reservoir ports (423, 424, 425) of the respective fluid reservoirs (420, 421, 422)"* as recited in claim 21, lines 15-19 above.

F. As to Hess, this reference is directed to a "piezo-electric atomizer 264" (see the text from from col. 10, line 41 to col. 11, 6; and col. 12, lines 37-55) and thus has NO RELEVANCE OR PERTINENCE to claim 21, which is directed to a "micromechanical dispensing device". The Hess reference thus is NON-ANALOGOUS to the invention of claim 21. Moreover, as Hess is a NON-ANALOGOUS REFERENCE to claim 21 then, accordingly, Hess CANNOT be used as a reference to determine the allowability of claim 21.

Further as to Hess, it is noted this reference is DEVOID of any TEACHING or SUGGESTION of the limitations *"the plurality of channels (454, 455, 456) further comprising channel ports (426, 427, 428) to which the corresponding fluid reservoirs (420, 421, 422) are removably, fluidly connected by means of corresponding fluid reservoir ports (423, 424, 425) of the respective fluid reservoirs (420, 421, 422)"* as recited in claim 21, lines 15-19 above.

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15. In summary, as to the allowability of claim 21:

- A. As to the reference Gooray, this reference does NOT anticipate claim 21;
- B. As to the five (5) references Smith, Helf, Denen, Watkins and Hess, these five (5) references are NON-ANALOGOUS REFERENCES to claim 21 and therefore CANNOT be used as references to determine the allowability of claim 21; and
- C. Notwithstanding B, as to the seven (7) references Gooray, Smith, Helf, Kubby, Denen, Watkins and Hess, when the invention of claim 21 is compared with these seven (7) references, DISTINCT DIFFERENCES become apparent and, moreover, UNLESS these seven (7) references, by themselves, would have suggested NOT ONLY these differences BUT ALSO the ENTIRE INVENTION of claim 21, viewed as a whole, to one of ordinary skill in the art at the time the invention was made, then claim 21 is PATENTABLE (allowable) over these seven (7) references.

16. Claims 23-28 and 30 are dependent on claim 21. As a result, these dependent claims 23-28 and 30 are believed allowable at least on the grounds that they depend on their common parent claim 21 which, as discussed in 13-15 above, is itself allowable.

In summary, it is believed the remaining claims are allowable and the application is in condition for allowance.

Accordingly, further consideration of this application now is respectfully requested. Please direct questions to the undersigned attorney at the number below.



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